

REMARKS

Reconsideration of this application, as amended, is respectfully requested.

Claims 12-17 and 23-36 are pending. Claims 23-36 are allowed. Claims 12-17 are rejected.

Claim 12 has been amended. No claims have been cancelled. No claims have been added. Support for the amendments is found in the specification, the drawings, and in the claims as originally filed. Applicant submits that the amendments do not add new matter.

ALLOWABLE SUBJECT MATTER

Applicants note with appreciation the Examiner's allowance of the claims 23-36.

REJECTIONS UNDER 35 U.S.C. § 103

Claims 12-17 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,495,467 of Shin et al. ("Shin") in view of U.S. Patent No. 5,091,326 of Haskell ("Haskell") further in view of U.S. Patent No. 6,197,639 of Lee et al. ("Lee").

Applicant has amended claim 12 to include that each of the plurality of the gate stacks has a gate stack length and a gate stack width. A one-dimensional slot is patterned in the ILD to provide access to the active regions. The one-dimensional slot has a length of the length of the bit line and a width approximately the width of the gate stack.

The Examiner acknowledged that Shin "fail to disclose the required slot/pattern in interlayer dielectric and the required bit lines" (Office Action, p.2, 09/21/05).

Haskell discloses a slot mask that provides self alignment between source, gate, and drain regions. More specifically, Haskell discloses

A layer of resist 30 is next formed on the top polysilicon layer 28d and is exposed to a "slot" mask (dashed lines 32 in FIG. 4b), which simultaneously provides for mutual self-alignment between source 18, gate 22 and drain 20 regions. The slot mask 32 may

also include provision for contact to other devices via extension 33 and for contact to the gate 22 via extension 35 and any other combinations thereof.

(Haskell, Figure 4b, col. 5, lines 43-50) (emphasis added)

Haskell, as shown in Figure 4b, merely discloses a slot mask 32 that has the width, the length, and extension 35, in contrast to a one-dimensional slot having a length of the length of the bit line and a width approximately the width of the gate stack. As such, Haskell, similarly to Shin, fails to disclose the limitations of amended claim 12 of a one-dimensional slot patterned in the ILD to provide access to the active regions, wherein the one-dimensional slot has a length of the length of a bit line and a width approximately the gate stack width.

Additionally, Haskell, similarly to Shin, fails to disclose the limitations of amended claim 12 of a bit line formed in the slot to contact the active regions.

Lee merely discloses a bit line contact region 43 connecting the metal plugs to a metal layer, bit line, bit line, and source line (col. 3, lines 24-27, Figure 3), in contrast to a one-dimensional slot patterned in the ILD to provide access to the active regions, wherein the one-dimensional slot has a length of the length of a bit line and a width approximately the width of the gate, as recited in amended claim 12.

Thus, neither Shin, Haskell, nor Lee discloses, teaches, or suggests such limitations of amended claim 12.

Furthermore, even if Shin, Haskell, and Lee were combined, such a combination would lack the limitations of amended claim 12 of a one-dimensional slot patterned in the ILD to provide access to the active regions, wherein the one-dimensional slot has a length of the length of a bit line and a width approximately the width of a gate.

Therefore, Applicant respectfully submits that amended claim 12 is not obvious under 35 U.S.C. § 103(a) over Shin, in view of Haskell, and further in view of Lee.

Given that claims 13-17 depend on amended claim 12, Applicant respectfully submits that claims 13-17 are likewise not obvious under 35 U.S.C. § 103(a) over Shin, in view of Haskell, and further in view of Lee.

Therefore, Applicant respectfully requests withdrawal of the rejection.

It is respectfully submitted that in view of the amendments and arguments set forth herein, the applicable rejections and objections have been overcome. If there are any additional charges, please charge Deposit Account No. 02-2666 for any fee deficiency that may be due.

Respectfully submitted,

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